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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/829,473

Applicant(s)

LAPPETELAINEN ET AL.

Examiner

BRANDON J. MILLER

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 11-23 and 26-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 11, 13-20, 23 and 27-37 is/are rejected.
- 7) ☒ Claim(s) 5, 12, 21, 22 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment/Remarks

Disposition of Claims

- I. Claims 1-6, 11-23, and 26-37 are pending in the application

Specification

II. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 33-34 recite “a computer program embodied on a computer medium”. Claim 36 recites “a computer program embodied on a computer-readable medium”. The pages of the specification regarding these limitations make no mention of a computer program being embodied on a computer or computer-readable medium. The specification and/or claims should be amended so that the terminology of the original claims follows the nomenclature of the specification.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 1, 6, 11, 13, 18, 30, 31, and 32 recite the subscriber terminal or apparatus and the at least one sub-terminal being in connection with the infrastructure simultaneously. Claims 33 and 35-37 recite being in connection with the infrastructure simultaneously with the at least one sub-terminal. The pages of the specification regarding these limitations make no mention of the subscriber terminal or apparatus and the at least one sub-terminal being in connection with the infrastructure simultaneously. The specification and/or

claims should be amended so that the terminology of the original claims follows the nomenclature of the specification.

The following art rejection is based on the best possible interpretation of the claim language in light of the objection under 37 CFR 1.75(d)(1).

Allowable Subject Matter

III. Claims 5, 12, 21-22, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

IV. Claims 33 and 35-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33 recites “being in connection with the infrastructure simultaneously with the at least one sub-terminal” in lines 15-16. The limitation does not distinctly claim the subject matter which applicant regards as the invention because the limitation does not describe which device or element is in connection with the infrastructure simultaneously with the at least one sub-terminal. The limitation renders the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 35-37 contains a limitation similar to the one described above in claim 33 and are rejected under 35 U.S.C. 112, second paragraph given the same reasoning as above.

The following art rejection is based on the best possible interpretation of the claim language in light of the rejection under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

V. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

- VI. Claims 1-4, 6, 11, 13-20, 23, and 27-37 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Ratert et al. (US 2004/0142684 A1) in view of Chen (US 7,010,268 B2).

Regarding claim 1 Ratert teaches connecting a subscriber terminal of a wireless telecommunication system to an infrastructure of the wireless telecommunications system over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system (see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling parameters for controlling the radio link; communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously. Chen teaches requesting a radio link from a subscriber terminal, the radio link being directed from an infrastructure to at least one sub-terminal; generating signaling parameters for controlling the radio link; communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure

simultaneously (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling parameters for controlling the radio link; communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 2 Ratert teaches generating at least one of the signaling parameters in the sub-terminal (see paragraph [0023] and FIG. 3).

Regarding claim 3 Chen teaches communicating at least one of the signaling parameters between the at least one sub-terminal and the infrastructure over a wireless interface between the infrastructure and the at least one sub-terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1).

Regarding claim 4 Chen teaches configuring the at least one sub-terminal to provide the radio link according to at least some of the signaling parameters (see col. 2, lines 30-36 & 41-43 and FIG. 1).

Regarding claim 6 Ratert teaches a system comprising a subscriber terminal and at least one sub-terminal, wherein the subscriber terminal comprises a connecting unit configured to connect the subscriber terminal to a infrastructure of a wireless telecommunications system and a subscriber identity unit configured to hold a subscriber identity of the subscriber terminal in the

wireless telecommunications system (see paragraphs [0016], radiotelephone 100 reads on subscriber terminal and FIG. 2). Ratert teaches wherein the at least one sub-terminal uses the subscriber identity of the subscriber terminal and includes a receiving unit configured to provide a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters (see paragraphs [0020] & [0021] and FIGs. 2 & 3). Ratert teaches wherein the system comprises a proximity signaling unit operationally connected to the signaling unit, configured to communicate at least one signaling parameter between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach wherein the subscriber terminal comprises a requesting unit operationally connected to the connecting unit configured to request a radio link directed from the infrastructure to the at least one sub-terminal; wherein the system comprises a signaling unit operationally connected to the connecting unit, configured to communicate at least one of a signaling parameters between the subscriber terminal and the infrastructure; and wherein the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously. Chen teaches wherein the subscriber terminal comprises a requesting unit operationally connected to the connecting unit configured to request a radio link directed from the infrastructure to the at least one sub-terminal; wherein the system comprises a signaling unit operationally connected to the connecting unit, configured to communicate at least one of a signaling parameters between the subscriber terminal and the infrastructure; and wherein the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are in connection with the infrastructure

simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include wherein the subscriber terminal comprises a requesting unit operationally connected to the connecting unit configured to request a radio link directed from the infrastructure to the at least one sub-terminal; wherein the system comprises a signaling unit operationally connected to the connecting unit, configured to communicate at least one of a signaling parameters between the subscriber terminal and the infrastructure; and wherein the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 11 Ratert teaches an apparatus comprising a connecting unit configured to connect the apparatus to an infrastructure of the wireless telecommunications system (see paragraphs [0016], radiotelephone 100 reads on subscriber terminal and FIG. 2). Ratert teaches a subscriber identity unit configured to hold a subscriber identity of the subscriber terminal in the wireless telecommunications system (see paragraph [0016]). Ratert teaches the at least one sub-terminal using the subscriber identity of the subscriber terminal, and a radio link being controlled on the basis of signaling parameters (see paragraphs [0020] & [0021] and FIGs. 2 & 3). Ratert teaches a proximity signaling unit configured to communicate at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach the apparatus requesting a radio link directed from the infrastructure to at least one sub-terminal; communicating at least one of the signaling parameters between the subscriber terminal and the

infrastructure; and wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal. Chen teaches the apparatus requesting a radio link directed from the infrastructure to at least one sub-terminal; communicating at least one of the signaling parameters between the subscriber terminal and the infrastructure; and wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include the apparatus requesting a radio link directed from the infrastructure to at least one sub-terminal; communicating at least one of the signaling parameters between the subscriber terminal and the infrastructure; wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 13 Ratert teaches an apparatus comprising a receiving unit configured to provide a radio link directed from an infrastructure of the wireless telecommunication system, to the apparatus (see paragraphs [0020] - [0021]). Ratert teaches the apparatus being operationally connected to the infrastructure and holding a subscriber identity in the wireless telecommunications system, the apparatus using the subscriber identity of a subscriber terminal (see paragraphs [0020] - [0021] and FIGs 2 & 3). Ratert teaches a proximity signaling unit configured to communicate at least some of the signaling parameters between the subscriber terminal and the sub-terminal over a proximity wireless interface (see paragraphs [0020] &

[0025] and FIGs. 2 & 3). Ratert does not specifically teach the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal; and wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the subscriber terminal. Chen teaches the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal; and wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the subscriber terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal; and wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the subscriber terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 14 Ratert and Chen teach a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 15 Ratert and Chen teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 16 Ratert teaches configuring the receiving unit according to at least some of the signaling parameters (see paragraph [0020]).

Regarding claim 17 Ratert teaches the sub-terminal configuring the proximity signaling according to at least some of the proximity signaling parameters received from the subscriber terminal (see paragraph [0020]).

Regarding claim 18 Ratert teaches the subscriber terminal being connected to the infrastructure and the subscriber terminal holding the subscriber identity in the wireless telecommunications system see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0020] - [0021] and FIGs 2 & 3). Ratert teaches at least one signaling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach an apparatus for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system; access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal; controlling the radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signaling parameters; and a signaling unit configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal. Chen teaches an

apparatus for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system; access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal; controlling the radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signaling parameters; and a signaling unit configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1, access of device 2 is simultaneous with the connection of the subscriber terminal). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include an apparatus for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system; access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal; controlling the radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signaling parameters; and a signaling unit configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 19 Ratert teaches controlling a radio link on the basis of signaling parameters generated in the sub-terminal (see paragraph [0023] and FIG. 3).

Regarding claim 20 Ratert and Chen teaches a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 21 Ratert teaches controlling the wireless interface on the basis of signaling parameters and a second signaling unit for communicating at least some of the proximity signaling parameters with the subscriber terminal (see paragraph [0020] – [0021] and FIG. 2).

Regarding claim 23 Ratert teaches elements selected from a group comprising: admission control, and allocation of resources (see paragraph [0023]).

Regarding claim 27 Ratert teaches a device as recited in claim 23 and is rejected given the same reasoning as above.

Regarding claim 28 Ratert teaches a device as recited in claim 23 and is rejected given the same reasoning as above.

Regarding claim 29 Ratert teaches a device as recited in claim 23 and is rejected given the same reasoning as above.

Regarding claim 30 Ratert teaches an apparatus comprising connecting the apparatus to an infrastructure of the wireless telecommunications system (see paragraphs [0016], radiotelephone 100 reads on subscriber terminal and FIG. 2). Ratert teaches a subscriber identity unit for holding a subscriber identity of the subscriber terminal in the wireless telecommunications system (see paragraph [0016]). Ratert teaches the at least one sub-terminal using the subscriber identity of the subscriber terminal, and a radio link being controlled on the basis of signaling parameters (see paragraphs [0020] & [0021] and FIGs. 2 & 3). Ratert teaches a proximity signaling for communicating at least one of the signaling parameters with the at least

one sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach the apparatus requesting a radio link directed from the infrastructure to at least one sub-terminal; communicating at least one of the signaling parameters between the subscriber terminal and the infrastructure; wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal. Chen teaches the apparatus requesting a radio link directed from the infrastructure to at least one sub-terminal; communicating at least one of the signaling parameters between the subscriber terminal and the infrastructure; wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal. (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are configured to be in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include the apparatus requesting a radio link directed from the infrastructure to at least one sub-terminal; communicating at least one of the signaling parameters between the subscriber terminal and the infrastructure; wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 31 Ratert teaches an apparatus providing a radio link directed from an infrastructure of the wireless telecommunication system, to the apparatus (see paragraphs [0020] - [0021]). Ratert teaches the apparatus being operationally connected to the infrastructure and holding a subscriber identity in the wireless telecommunications system, the apparatus using the

subscriber identity of a subscriber terminal (see paragraphs [0020] – [0021] and FIGs 2 & 3). Ratert teaches a proximity signaling communicating at least some of the signaling parameters between the subscriber terminal and the sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal; wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal. Chen teaches the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal; wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal. (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are configured to be in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal; wherein the apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 32 Ratert teaches the subscriber terminal being connected to the infrastructure and the subscriber terminal holding the subscriber identity in the wireless

telecommunications system see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0020] - [0021] and FIGs 2 & 3). Ratert teaches at least one signaling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach an apparatus for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system; the access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal; controlling the radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signaling parameters; and a signaling unit configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal. Chen teaches an apparatus for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system; the access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal; controlling the radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signaling parameters; and a signaling unit configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal (see col. 2, lines 30-

36 & 41-43 and FIG. 1, the access of device 2 being simultaneous with the connection of the device 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include an apparatus for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system; the access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal; controlling the radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signaling parameters; and a signaling unit configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 33 Ratert teaches connecting a subscriber terminal of a wireless telecommunication system to an infrastructure of the wireless telecommunications system over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system (see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach a computer program; requesting a radio link from the

subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling parameters for controlling the radio link; and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal. Chen teaches computing device (see col. 1, lines 19-20). Chen teaches requesting a radio link from a subscriber terminal, the radio link being directed from an infrastructure to at least one sub-terminal; generating signaling parameters for controlling the radio link; and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and 2 are in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling parameters for controlling the radio link; communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 34 Ratert teaches wherein the control of the radio link is admission control, or allocation of radio resources (see paragraph [0022]).

Regarding claim 35 Ratert teaches connecting a subscriber terminal to an infrastructure over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system (see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach requesting a radio link, at the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling parameters for controlling the radio link; and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal. Chen teaches requesting a radio link from a subscriber terminal, the radio link being directed from an infrastructure to at least one sub-terminal; generating signaling parameters for controlling the radio link; and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling

parameters for controlling the radio link; communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 36 Ratert teaches connecting a subscriber terminal to an infrastructure over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system (see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach a computer program, embodied on a computer-readable medium; and requesting a radio link, at the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; receiving signaling parameters for controlling the radio link; communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal. Chen teaches computing device (see col. 1, lines 19-20). Chen teaches requesting a radio link from a subscriber terminal, the radio link being directed from an infrastructure to at least one sub-terminal; receiving signaling parameters for controlling the radio link; and communicating at least one of the signaling

parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include a computer program, embodied on a computer-readable medium; and requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling parameters for controlling the radio link; communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal; and being in connection with the infrastructure simultaneously with the at least one sub-terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Regarding claim 37 Ratert providing a link directed from an infrastructure of the wireless telecommunications system, and holding a subscriber identity in the wireless telecommunications system, the subscriber identity being the identity of a subscriber terminal (see paragraphs [0016] & [0023]). Ratert teaches communicating a signaling parameter to a subscriber terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure; and being in connection with the infrastructure simultaneously with the subscriber terminal. Chen teaches radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure; and being in connection with the infrastructure

simultaneously with the subscriber terminal (see col. 2, lines 30-36 & 41-43 and FIG. 1, device 1 and device 2 are in connection with the infrastructure simultaneously). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure; and being in connection with the infrastructure simultaneously with the subscriber terminal because Ratert teaches that the connection parameters are transferred to the sub-terminal and the devices in Ratert are functionally capable of transferring them from the infrastructure as taught in Chen.

Response to Arguments

VII. Applicant's arguments filed 04/21/2009 have been fully considered but they are not persuasive.

Regarding claims 1, 6, 11, 13, 18, 30-33, and 35-37 the combination of Ratert and Chen teach a device as claimed.

Applicant has argued that the combination of Ratert and Chen fails to disclose, teach, or suggest, at least, "the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously". The examiner disagrees.

Chen teaches a subscriber terminal and at least one sub-terminal being in connection with the infrastructure simultaneously (see col. 2, lines 30-36 & 41-43 and FIG. 1). The device or element 1 and the device or element 2 are in connection with the infrastructure 4 simultaneously. This reads on a device as claimed.

Conclusion

VIII. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Makinen Pub. No.: US 2003/0003892 A1 discloses a wireless user interface extension.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON J. MILLER whose telephone number is (571)272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Brandon J Miller/
Examiner, Art Unit 2617

July 27, 2009